137. (new) A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said method comprising:

evaluating a degree of importance of the line segment of said framework;

removing unnecessary line segment on the basis of a result of an evaluation of said line segment; and

determining a position of a vertex after said unnecessary line segment is removed.

138.(new) The method of claim 137, wherein said image data are 3dimensional polygon data.

139. (new) The method of claim 137, wherein said evaluating a degree of importance of the line segment is performed on the basis of a change amount of a volume of the image specified by said image data when said line segment is removed.

140. (new) The method of claim 139, wherein said evaluating a degree of importance of the line segment is decided that the degree of importance of said line segment is small as said change amount of said volume is small.

141. (new) The method of claim 137, wherein said evaluating a degree of importance of the line segment is performed on the basis of a vector which is representing said line segment, an area of a plane of said image data which is composed by at least one of said vertices of said line segment, and a normal vector at said plane.

142. (new) The method of claim 141, wherein said evaluating a degree of importance of the line segment is obtained on the

basis of a calculation of sum of results of a equation (N • E) X A at planes which are constricted by at least one vertices of said line segment. wherein "E" is representing said line segment, "A" is an area of said plane, "N" is a unit vector normal to said plane, "•" is a inner product, and "X" is a product.

143. (new) The method of claim 137, wherein said evaluating of degree of importance of the line segment is performed on the basis of a change amount of area of the image specified by said image data when said line segment is removed.

144 (new) The method of claim 143, wherein said evaluating a degree of importance of the line segment is decided that the degree of importance of said line segment is small as said change amount of said area is small.

145 (new) The method of claim 137, wherein said evaluating a degree of importance of said line segment is performed on the basis of a length of said line segment, and an area of a plane of said image data which is composed by said line segment.

146. (new) The method of claim 145, wherein said evaluating a degree of importance of the line segment is obtained on the basis of a calculation of sum of results of a equation |E| X A at planes which are composed by said line segment, wherein "|E|" is length of said line segment, "A" is an area of said plane, and "X" is a product.

147. (new) The method of claim 137, wherein said evaluating a degree of importance of the line segment is performed on the basis of a length of said line segment.

148. (new) The method of claim 147, wherein said evaluating a degree of importance of the line segment is decided that the degree of importance of said line segment is small as said length of said line segment is short.

149. (new) The method of claim 137, wherein when two or more edges are assigned an identical degree of importance, a shortest line segment of said line segments receiving an identical degree of importance is said unnecessary edge.

150. (new) The method of claim 137, further comprising repeating the step of said evaluating a degree of importance of the line segment, the step of said removing said unnecessary line segment, and the step of said determining said position of said vertex after said unnecessary line segment is removed.

151. (new) The method of claim 137, wherein said evaluating a degree of said line segment is performed on the basis of a removal importance value of the line segment obtained from a change amount of said image data caused by the removing of said line segment and on the basis of an assigned importance value of the line segment assigned by a user.

152. (new) The method of claim 151. wherein said evaluating a degree of importance of the line segment decides that the degree of importance of said line segment is small, if said removal importance value and said assigned importance value are both small.

153. (new) The method of claim 151, wherein said assigned importance value is a removing order of said line segments.

154. (new) The method of claim 137, further comprising specifying at least one said line segment as of high importance,

wherein said evaluating a degree of importance of said at least one line segment further comprises preventing said at least one high importance line segment from being designated as said unnecessary line segment.

155. (new) The method of claim 154, wherein said specifying the at least one line segment as of high importance is performed by a user.

156. (new) The method of claim 154, wherein said specifying the at least one line segment as of high importance specifies a portion where more than two image data are adjacent.

157. (new) The method of claim 137, wherein said vertex is decided at a position where a total loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after said line segment removing is minimized.

158. (new) The method of claim 157, wherein when the shape of the portion where said removal line segment is a concave or convex shape, said vertex is decided at a position where a total loss of area between said original framework and said reconfigured framework is minimized.

159. (new) The method of claim 137, wherein said vertex is decided at a position where a loss of area between the original framework which is the framework before line segment removing and the reconfigured framework which is the framework after line segment removing is equal on both sides of said vertex.

160. (new) The method of claim 159, wherein when the shape of the portion where said removal line segment is a S-character shape, said vertex is arranged at a position where a loss of area

between said original framework and said reconfigured framework is equal on both sides of said vertex.

161. (new) The method of claim 137, wherein said determining a position of said vertex determines the vertex at a position of one of the vertices of the removal line segment.

162. (new) The method of claim 137, further comprising, generating an intermediate configuration of said image data by decreasing a length of said unnecessary line segment.

163. (new) The method of claim 137, further comprising, generating an framework at intermediate layer between said original framework which is the framework before line segment removing and said reconfigured framework which is the framework after line segment removing by determining a position of vertices in the intermediate layer on the basis of the relation of vertices position between said original framework and said reconfigured framework.

164. (new) The method of claim 163, said position of vertices at intermediate layer is determined by the interpolation of vertices position of said original framework and said reconfigured framework.

165. (new) The method of claim 164, said interpolation is a linear interpolation.

166. (new) The method of claim 137, further comprising reconfiguring a texture applied to said framework to account for said removing of said unnecessary line segment.

167. (new) The method of claim 137, wherein said evaluation of degree of importance of the line segment is performed on the

basis of an evaluation value of said line segment and evaluation values of peripheral line segments.

168. (new) The method of claim 137, wherein said removing of unnecessary line segment removes either one of two vertices constructing the unnecessary line segment; and

said determining of a position of vertex determines amount of shift the vertex which is constructing the unnecessary line segment and not removed on said removing of unnecessary line segment.

169. (new) A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said method comprising:

assigning an importance value to each line segment of said framework;

removing from said framework said line segment having lowest importance value; and

reconfigure said framework to account for said removal of said line segment having said lowest importance value.

170. (new) The method of claim 169, wherein said reconfiguring further comprises replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

171. (new) A method of approximating an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework to which textures or pictures are applied, said framework being composed of line segments connected between vertices, said method comprising:

evaluating a degree of importance of the line segment of

said framework;

removing unnecessary line segment on the basis of a result of an evaluation of said line segment;

reconfiguring said framework to account for said removal of said line segment; and

reconfiguring said textures or pictures applied to said framework to account for said removal of said line -segment.

172. (new) The method of claim 171, wherein said reconfiguring the textures or pictures applied to the framework is preformed by removing relation between the vertex of the line segment to be removed and textures or pictures.

173. (new) The method of claim 171, wherein said reconfiguring the said framework is preformed by replacing two vertices of said framework, between which said removed line segment had been connected, with a single new vertex;

said reconfiguring the textures or pictures applied to the framework is preformed by determining a new position of the corresponding point on said textures or pictures on the basis of a position of said single new vertex in said framework.

174. (new) The method of claim 173, wherein said reconfiguring of said textures or pictures applied to the framework determines said new position of the corresponding point by interpolation from coordinates between two points on the textures or pictures which inherently correspond to the line segment to be removed.

175. (new) The method of claim 174, wherein said interpolation of the points of the textures or pictures uses a linear interpolation.

176. (new) The method of claim 173, wherein said

reconfiguring the said framework determines a position of the single new vertex using a interpolation of two vertices on the framework which constructs the line segment to be removed;

said reconfirming the textures or pictures applied to the framework determines the new position of the corresponding point by interpolation from coordinates between two point on the textures or pictures which inherently correspond to the line segment to be removed using the interoperation coefficient of framework interpolation.

177 (new) The method of claim 171, wherein said evaluating a degree of importance of the line segment of said framework further comprises preventing the line segment existing on an outline of said texture or picture from being designated as said unnecessary line segment.

176. (new) The method of claim 171, wherein said evaluating a degree of importance of the line segment of said framework further comprises preventing the line segment, which exists on an outline of said texture or picture and an area change amount after said line segment removal exceeding a predetermined value from being designated as said unnecessary line segment.

178. (new) The method of claim 177, wherein said area change amount after the line segment removal is obtained on the basis of a calculation of .sum of results of a equation $|(N \bullet E) \times L|$ at line segments corresponding to the boundary lines of the texture or picture existing before and after the line segment to be removed, wherein "E" is representing said line segment, "L" is a length of said line segment corresponding to the boundary lines of the texture or picture, "N" is a normal vector of said line segments, "•" is a inner product, and "X" is a product.

179. (new) The method of claim 171, wherein said reconfiguring said textures or pictures applied to said framework decides a new position of the corresponding point on said textures or pictures where an area change amount of said textures or pictures to be influenced by the approximation lies within a predetermined range.

180. (new) A device for use with a display device that approximates an image by decreasing an amount of image data used to create the image, wherein said image data defines a polygonal framework, said framework being composed of line segments drawn between vertices, said device comprising:

a memory unit for storing said image data; and

a processor connected to said memory unit, wherein said processor is programmed to:

(a) assign an importance value to each line segment of said framework;

(b) remove from said framework that line segment having a lowest importance value; and

(c) reconfigure said framework to account for said removal of said line segment having said lowest importance value.

181. (new) The device of claim 180, further comprising an input device inputting said image data to said processor for storage in said memory unit.

182. (new) The device of claim 181, wherein said input device comprises a floppy disk drive.

183. (new) The device of claim 181, wherein said input device comprises a magneto-optical disk drive.

184. (new) The device of claim 180, further comprising a user input device for inputting data to said processor.

185. (new) The device of claim 184, wherein said user input device comprises a keyboard.

186. (new) The device of claim 180, wherein said processor is further programmed to reconfigure texture and pictures applied to said framework to account for removal of said line segment.

187. (new) The device of claim 180, said processor, in performing said reconfiguration of said framework, is programmed to replace two vertices of said framework, between which said removed line segment had been connected, with a single new vertex.

188. (new) The device of claim 180, wherein said image data defines a 3-dimensional polygonal framework.

189. (new) The device of claim 180, said processor, in performing said assignment of importance values, is programmed to evaluating an amount by which a volume of the polygonal framework defined by the image data is changed by removal of a particular line segment.

190. (new) The device of claim 189, said processor, in performing said assignment of importance values, is programmed to assign a line segment an importance value in direct proportion to the amount of volume change caused by removal of that line segment.

191. (new) The device of claim 180, said processor, in performing said assignment of importance values, is programmed to use a vector (E) which represents a particular line segment, an

area (A) of a polygon within said polygonal framework, wherein said particular line segment is a side of said polygon, and a vector (N) normal to a plane of said polygon.

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192. (new) The device of claim 191,

wherein said processor assigns an importance value to each line segment by calculating an importance of a particular line segment by (N • E) x A,

wherein E is said vector representing a particular line segment, A is said area of a polygon sided by said particular line segment, and N is said normal vector.

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193. (new) The device of claim 180, said processor, in performing said assignment of importance values, is programmed to determine an amount by which an area of said polygonal framework defined by said image data is changed by removal of a particular line segment.

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194. (new) The device of claim 193, wherein said processor assigns an importance value to a particular line segment in direct proportion to said amount by which said area of said polygonal framework is changed by removal of that line segment.

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195. (new) The device of claim 180, wherein said processor, in performing said assignment of importance values, assigns an importance value to each line segment based on a length of a particular line segment and an area of a polygon within said polygonal framework of which said particular line segment is a side.

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196. (new) The device of claim 180, wherein said processor assigns an importance value to each line segment by calculating a sum of results of an equation |E| x A for polygons sided by said particular line segment, wherein "|E|" is length of that line

segment, "A" is an area of a polygon sided by said particular line segment.

197. (new) The device of claim 180, wherein said processor, in performing said assignment of importance values, is programmed to assign an importance value to each line segment based on a length of said line segments.

198. (new) The device of claim 182, wherein said processor assigns an importance value to each line segment in direct proportion to a length of that line segment.

199. (new) The device of claim 180, wherein if two or more line segments are assigned an identical degree of importance, said processor assigns a lowest degree of importance among said two or more line segments to that line segment of said two or more line segments with a shortest length.

200. (new) The device of claim 180, wherein said processor is further programmed to repeat said assignment of an importance value to each line segment; said removal of that line segment with the lowest importance value; and said reconfiguration said framework.

201. (new) The device of claim 180, wherein said processor is programmed to assign an importance value to each line segment based on an amount by which an amount of said image data is changed by removal of a particular line segment.

202. (new) The device of claim 180, wherein said processor is programmed to assign an importance value to each line segment based on importance values assigned by a user to one or more of said line segments.

203. (new) The device of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a total loss of area between a framework including said line segment having said lowest importance value and a framework containing said new vertex and in which said lowest-importance-value line segment is removed is minimized.

204. (new) The device of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a new vertex at a position such that a loss of area to said framework caused by removal of said lowest-importance-value line segment is approximately equal for portions of said framework on opposite sides of said new vertex.

205. (new) The device of claim 180, wherein said processor is programmed to reconfigure said framework by positioning a vertex at a position corresponding to an end of said removed lowest-importance-value line segment.

206. (new) The device of claim 180, wherein said processor is programmed to generate an intermediate configuration of said image data by decreasing a length of said lowest-importance-value line segment.

207. (new) The device of claim 180, wherein said processor is programmed to reconfigure said framework by generating a new vertex to replace a previous vertex located at an end of said removed, lowest-importance-value line segment.